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East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2342

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REPORT ON FULFILLMENT OF 9-MONTH ECONOMIC PLAN

Sofia RABOTNICHESKO DELO in Bulgarian 23 Oct 82 pp 1-2

[Report by the Committee for the Unified Social Information System. Results of the Implementation of the Unified Plan for the Socioeconomic Development of the Bulgarian People's Republic in the First 9 months of 1982]

[Text] During the first 9 months of the year the efforts of the labor collectives were focused on ensuring the development of the national economy in accordance with the decisions of the 12th BCP Congress and the stipulations of the October 1981 National Conference. Under the conditions of the systematic application of the new economic approach and its mechanism a new step was taken toward intensification in production and servicing activities. The 9-month state planned assignments regarding basic economic indicators were fulfilled and overfulfilled.

The overall activities of economic organizations and enterprises have resulted in a substantially higher net output and profit compared with the first 9 months of 1981. Above plan reduction of material outlays was achieved. Social labor productivity increased, which accounted for most of the increased net output.

The implementation of tasks in the field of scientific and technical progress played an important role in the activities of economic organizations and ministries in further production intensification. The efforts of the collectives in scientific services and application units were focused on the creation of new and the improvement of items which, as a rule, had higher qualitative characteristics and were consistent with the requirements of reducing power and material outlays. A number of contemporary technological solutions were achieved and on this basis a new step was taken toward the efficient updating of the material and production base and facilitating heavy and unattractive physical labor.

All in all, during the first 9 months, more than 3,000 scientific developments were applied in the country. The initial series were produced and regular production was undertaken of four automatic technological modules, a machine for casting plastic foam, a set of electrical appliances, a uniform series of triphase asynchronous two-speed electric engines, a tiristor system for exciting synchronous electric motors, and the problem-oriented "Geolog" and "Inforeg" complexes.

At the same time, the variety in our food industry was enriched by 175 new items. During the first 9 months of the year some new food products were developed, entirely consistent with the requirements of specialized children's nutrition--mashed goods and heavy syrups enriched with dectine and others.

The task of converting the automotive fleet to diesel engines is being successfully implemented. In order to upgrade road and flight traffic safety 17 automated crossing systems and a new radar set were installed.

Despite the positive results achieved in scientific research and development, the managements of some economic organizations were unable fully to coordinate the activities of developers and appliers and did not adequately control the observance of deadlines for concluding the stages of the individual developments. This was the main reason for which 82 developments were not applied during the first 9 months of the year.

I. Industry

The industrial economic organizations and enterprises as a whole successfully fulfilled their state planned assignments for production and marketing. Compared with the first 9 months of 1981 commodity output was 4.3 percent higher. The rate of growth of industrial output in the basic ministries and departments was as follows:

	First 9 months of 1982 in percent of first 9 months of 1982
Ministry of Power Supply........................	106.1
Ministry of Chemical Industry....................	100.2
Ministry of Metallurgy and Mineral Resources.....	102.7
Ministry of Machine Building and Electronics.....	107.9
Ministry of Light Industry.......................	104.5
National Agroindustrial Union....................	104.1
Ministry of Forests and Forest Industry..........	104.2
Ministry of Construction and Architecture........	101.0
Ministry of Transportation.......................	106.6
Ministry of Communications.......................	100.0
Ministry of Internal Trade and Public Services...	104.3
Central Cooperative Union........................	107.5
Sofia City People's Council......................	103.5

The production of a number of basic industrial commodities increased, thanks to which substantially higher amounts of productive capital and goods for the domestic market and export were made available.

Production of Some Basic Industrial Commodities

	Goods produced in the first 9 months of 1982	First 9 months of 1982 in percent of first 9 months of 1981
Electric power, million kilowatt hours	29,107	108.2
Coal, thousand tons	25,105	108.7
Cast iron for processing, thousand tons	1,223	107.1
Steel in ingots, " "	1,969	104.8
Rolled ferrous metals, " "	2,449	98.2
Electric hoists, thousands	96	101.1
Forklift trucks, "	30	96.5
Gas-operated lift trucks, thousands	17	112.0
Internal combustion engines, "	18	117.9
Power transformers, "	6	103.0
Asynchronous electric motors, "	901	111.9
Calcinated soda, thousand tons	1,111	101.8
Chemical fibers and silks, " "	77	102.7
Nitrogen fertilizers, " "	564	100.7
Cement, " "	4,212	103.4
Paper, " "	261	102.0
Furniture, million leva	316	108.6
Cotton and cotton-type fabrics, million meters	272	103.5
Woolen and woolen-type fabrics, " "	29	104.0
Shoes (excluding rubber and slippers) million pairs	14	101.5
Meat, thousand tons	353	104.6
Meat products, thousand tons	73	105.6
Cheese, " "	83	100.8
Kasseri cheese, " "	21	113.5
Butter, " "	17	109.4

The labor collectives in some economic branches face the responsible task of compensating for the nonfulfillment of state planned assignments for the production of cast iron for processing, steel ingots, rolled ferrous metals, cold rolled steel sheets, steel pipes, industrial robots, highly productive machine tools, polyvinyl chloride, phosphorous fertilizers, high-pressure polyethlyene, tiles, canned fruits and vegetables, raw hides from cattle, and meat and vegetable foods for children.

The marketing process has been subtantially accelerated and 99.5 percent of the produced goods were sold.

II. Capital Investments and Construction Output

In order to ensure the further development and improvement of the material base of the national economy, during the first 9 months of the year 4.2 billion leva in capital investments were used. Most of the investments in material production were concentrated on the reconstruction, updating and expansion of existing production capacities.

The construction and installation organizations carried out work worth 2.7 billion leva or 1.5 percent more than during the preceding year; however, the state plan fell short by 2.8 percent. The program for the construction of target projects was overfulfilled as a whole but a lagging occurred in some projects of importance to the national economy.

Productive capital worth 2.7 billion leva was commissioned. Assignments on the commissioning of productive capital in the power industry, metallurgy, mineral resources, machine building, electronics, light industry, construction and other sectors and the plan for the commissioning of productive capital in projects engaged in the production of consumer goods were overfulfilled.

III. Agriculture

During the first 9 months of the year a variety of initiatives aimed at increasing production intensification and the prompt and qualitative implementation of agricultural work continued. As a result, this year we are expecting an increased production of grain foods, sunflower, tobacco, cotton, sugar beets, basic vegetables, potatoes, hay, haylage and grapes, compared with 1981. Today the fullest possible harvesting and utilization of the crops is a nationwide task. The efforts of the labor collectives in agriculture have been mobilized, assisted by youth brigades and workers and employees in other sectors. Efforts are being made to use all available equipment. Interaction has been organized with processing and transportation enterprises for the timely and fast purchasing, transportation, handling, export, processing and storing of agricultural commodities. Despite the tremendous work being done by a number of agroindustrial complexes, weaknesses are being allowed such as unjustified extension of harvesting time, incomplete use of machines, delayed shipping of the goods from the fields, and others.

Preparations for the autumn sowing of wheat and barley are relatively good. The necessary seeds have been procured and 90 percent of them are first grade. The main fertilizing of the areas was carried out on time. In some okrugs such as Razgrad, Pleven, Ruse and Stara Zagora, chemical fertilizers were not delivered on time.

Positive results were achieved in animal husbandry during the first 9 months of the year despite the difficulties caused by the production of less feeds in 1981. The number of cattle in the agricultural organizations on 1 October 1981 was the following:

	Thousands	1 October 1982 in percent of 1 October 1981
Cattle	1,440	99.8
Including cows	497	101.3
Hogs	2,814	95.5
Sheep	6,852	103.1
Poultry	28,395	102.6

Compared with the first 9 months of 1981, 4.2 percent more livestock for meat and 5.4 percent more milk and about 1 percent less eggs were purchased. More considerable purchases were made of cattle and poultry for meat in Blagoevgrad Okrug, Sofia City, Veliko Turnovo, Plovdiv and other okrugs; of milk--in Burgas, Vidin, Gabrovo, Kurdzhali, Lovech, Sliven, Smolyan, Turgovishte, Yambol and other okrugs.

IV. Transportation and Communications

New successes were achieved during the first 9 months of the year in the further development and improvement of the national transportation and communications systems.

Public use transportation overfulfilled its freight haulage plan. Compared with the first 9 months of 1981 haulage increased by 3.2 percent by rail and 2.2 percent by road. Passenger transportation increase by 2.8 percent.

Transportation requirements for agricultural commodities were met better. Starting with the beginning of the agricultural campaign 1.3 million tons of freight were hauled more than contracted.

Compared with the first 9 months of 1981 a number of technical and economic indicators were improved. Turnover time per freight car was reduced by nearly one hour; sectorial speed was increased by 6.2 percent and the average weight of freight train by 9 tons.

The average technical speed per truck was increased by 1.3 percent; the average number of workdays of trailers in proper technical order increased by 1.9 percent; the average daily run of buses increased by 1.4 percent. However, the length of the workday of trucks declined by 0.9 percent.

Income from communications services was 6.4 percent higher compared with the first 9 months of 1981.

The mail service was increased by the addition of 19 postal telegraph and telephone stations, 15 of which in the villages. A total of 91,691 new telephone sets were installed, 71,597 of which in households. Another 157 telex stations were opened. Nineteen radio relay centers and 41 television retranslators were commissioned.

V. Foreign Economic Relations

During the first 9 months of the year Bulgaria's participation in the international socialist division of labor increased. New successes were achieved in the development of foreign trade.

Compared with the first 9 months of 1981 foreign trade increased by 8.5 percent as follows: exports--8.4 percent and imports, 8.5 percent. Positive changes continued to be made in the structure of exports. Exported machines and equipment for industrial use accounted for 47.8 percent of overall exports compared with 46.8 percent in the first months of 1981.

Foreign trade relations are developing particularly favorably with CEMA-member countries, the USSR above all.

Economic and foreign trade relations with the developing countries continued to grow.

VI. Population Living Standard

The successful implementation of production assignments created the necessary conditions and prerequisites for the further systematic implementation of the program for upgrading the people's living standard.

Based on increased production and higher labor productivity, the average monthly wage of workers and employees in economic organizations (excluding agriculture) exceeded 196 leva or was 2 percent higher compared with the first 9 months of 1981.

Positive results were achieved in improving trade services to the population. The trade network was expanded as new stores and public catering institutions were opened. Along with restaurants, pastry shops and booths, more than 1,800 booths, stands and other mobile public catering institutions were in operation. The material production enterprises have about 3,250 stores, coffee shops and booths in which workers and employees have the possibility to purchase the products and goods they need at their place of work.

Better quality consumer goods in greater variety and better quality were produced. Local industry produced for the commodity stock 5.6 percent more and imports increased by 7.8 percent of goods compared with the first 9 months of 1981. Additional local production quantities included 4.6 meat, 1.5 percent cheese, 13.4 percent kasseri cheese, 1.6 percent milk, 4.6 percent butter, 0.7 percent confectionary goods, 23.7 percent eggs, 0.6 percent cotton fabrics, 0.5 percent shoes, 6.5 percent hose, 22.9 percent television sets, including color television sets by a factor of 2.8, electric washing machines 45.7 percent, household refrigerators 9.3 percent, and so on. This made it possible to meet more completely and promptly population needs in town and country.

The turnover plan was fulfilled. Retail trade totaled 9,760,000,000 leva or 4.3 percent more than during the first 9 months of 1981.

During certain periods and in some settlements needs for specific commodities were not entirely and promptly met as a result of unrythmical deliveries and subjective weaknesses. A number of production enterprises were unable to supply the full amount of contracted goods, particularly in terms of variety.

Positive results were achieved in population services. Compared with the first 9 months of 1981 services increased as follows: maintenance and repairs of motor vehicles, 17.3 percent; laundry services, 14.4 percent; maintenance and repair of elevator systems, 12.3 percent; and household equipment, 11.4 percent.

Despite such positive results, some types of services are not being developed at the necessary pace. Shortcomings remain in ensuring prompt supplies of materials and spare parts, which hinders the maintenance and repair of household equipment and various instruments, objects and installations of the citizens. The quality of some services was not on the necessary level and did not meet entirely the increased requirements of the working people.

A total of 32,120 new housing units were completed.

On 30 September 1982 the Bulgarian population was 8,926,000.

The results achieved during the first 9 months of the year and the activeness of the working people lead us to expect the good fulfillment of the annual plan and the implementation of the additional assignments based on the October 1981 conference. This will ensure new gains in the country's economic development and the social development of the labor collectives and will enhance the living standard of the people (BTA).

5003
CSO: 2200/17

CZECHOSLOVAKIA

ECONOMIC PERFORMANCE OF STATE FARMS IN 1981

Prague STATNI STATKY in Czech No 9 82 pp 139-140

[Article by Eng Jaroslava Glaserova, Federal Office of Statistics, Prague: "Economic Results Achieved by State Farms in the CSSR in 1981"]

[Text] According to the definitive statewide data on gross agricultural production (HZP), the state farms managed by the agricultural organs achieved Kcs 15.5 billion HZP in 1981 (at stable 1980 prices) and accounted for 15.3 percent of the total volume of HZP in Czechoslovak agriculture.

The intensity of agricultural production on state farms and particularly of animal production was lower than in 1980 (Table 1).

Table 1. Intensity of agricultural production on state farms in the CSSR

Indicator	1980	1981	1981/1980 Index (percent)
Gross agricultural production* (at stable 1980 prices) per ha of agricultural land in Kcs	11,579	11,376	98.2
including crop production	4,723	4,682	99.1
animal production	6,856	6,694	97.6

*) according to definitive statewide data on agricultural production

Average gross agricultural production on state farms amounted to Kcs 94,000 per worker in 1981 (at stable 1980 prices), which was 2.1 percent less than in 1980.

Although the outputs (at current prices) on state farms somewhat increased statewide in comparison with 1980 (particularly the total output including extra revenues), their costs increased even more (Table 3).

Table 2. Structure of material costs of state farms in the CSSR

Item of material costs	Outlays in Kcs per ha of agricultural land			Cost structure (percent)	
	1980	1981	index (percent) 1981/1980	1980	1981
Intensification material costs	4063	4152	102.2	42.3	41.3
including costs of purchased seeds for sowing and seedlings	589	635	107.8	6.1	6.3
industrial fertilizers and protective chemicals	1207	1256	104.1	12.6	12.5
fodder and bedding	2267	2261	99.7	23.6	22.5
Other material costs (mainly replacement costs)	5551	5901	106.3	57.7	58.7
including costs of: energy	316	362	114.6	3.3	3.6
motor fuels and other fuels	541	563	104.1	5.6	5.6
spare parts and material for repairs	700	742	106.0	7.3	7.4
building materials	399	428	107.3	4.2	4.3
repairs and maintenance	611	691	113.1	6.4	6.9
transportation, communications and other performance of productive nature	945	984	104.1	9.8	9.8
depreciation of capital assets	928	1103	118.9	9.7	11.0
services of immaterial nature	174	190	109.2	1.8	1.9
Material costs and services of immaterial nature, total	9614	10,053	104.6	100.0	100.0

In 1981, the level of expenditures on state farms exceeded the volume of actual outputs by Kcs 0.28 per Kcs 100 of output (including extra revenues).

The production costs increase was caused primarily by the trend in material costs. The volume of labor costs per ha of agricultural land amounted on state farms to Kcs 3,623 in 1981 which was 3.2 percent more than in 1980, while the volume of material costs (including services of immaterial nature) per ha of agricultural land increased to Kcs 10,053 in 1981 or 4.6 percent above the 1980 level.

The increase in labor costs per ha was affected primarily by the rise in the wage level. While the average monthly wage of the worker on the state farm in the CSSR was Kcs 2,532 in 1980, it was Kcs 2,587 or 2.2 percent more in 1981. Yet, the area of agricultural land per worker on the state farms remained the same as in 1980 (8.3 hectares).

The change in the structure of material costs of state farms during the last 2 years is shown on Table 2.

Table 3. Trend in Outputs and Costs in 1981 as Compared with 1980

Indicator	1981	1981	Index 1981/1980 (in percent)
Per ha of agricultural land			
Outputs excluding extra revenues	13,569	13,815	101.8
Outputs including extra revenues	14,105	14,461	102.5
Costs, total	13,885	14,502	104.4
Per Kcs 100 of output (including extra revenues) in Kcs:			
Costs, total	98.44	100.28	101.9
including: material costs (including services of immaterial nature)	68.16	69.51	102.0
Labor costs	24.90	25.05	100.6

The group of intensification costs (that is, of costs of purchased seeds for sowing and seedlings, fodder and bedding, industrial fertilizers and protective chemicals) per hectare of agricultural land increased 2.2 percent (to Kcs 4,152) in 1981 as compared with 1980, while other costs--predominantly replacement costs (that is, the cost of energy motor fuels, spare parts, building materials, repairs and maintenance of capital assets, transportation, communications, other performance of productive nature, depreciation of capital assets and others)--increased 6.3 percent per ha of agricultural land (to Kcs 5,901) in 1981 in comparison with 1980. This means that the group of replacement costs increases more rapidly than the intensification costs.

The group of intensification costs accounted for 41.3 percent of material costs in 1981 and declined 1 point in comparison with 1980, with other (predominantly replacement) costs accounted for 58.7 percent of material costs in 1981 and their share increased 1 point in 1981 in comparison with 1980.

The key component of intensification costs is the expenditure on fodder and bedding. The cost of purchased fodder and bedding considerably increased in the course of the Sixth 5-Year Plan (in comparison with the Fifth 5-Year Plan, they increased on the average 8.8 percent per ha of agricultural land during the Sixth 5-Year Plan; this reflected also the increase in the prices of industrial fodder in 1980). In 1981, the cost of fodder and bedding purchased by the state farms declined insignificantly (0.3 percent) per ha of agricultural land.

In the group of replacement costs in comparison with 1980, the biggest increase was registered on the state farms in depreciation of capital assets (18.9 percent), cost of energy (14.6 percent) and the expenditures on repairs and maintenance of capital assets (13.1 percent). Due the these increases, there are also a substantial increase in the share of these components in the total amount of material costs (in comparison with 1980, the share of depreciation increased 1.3 points, of energy cost 0.3 points and of cost of repairs and maintenance of capital assets 0.5 points). Percentagewise, the share of costs of motor and other fuels, and the share of cost of transportation, communications and other operations of productive nature remained on the 1980 level.

The overall increase in costs on state farms in 1981 (when Kcs 100.28 were spent on Kcs 100 of output) in comparison with 1980 (when the costs per Kcs 100 of output were Kcs 98.44) was negatively reflected in the total economic results of state farms. While the state farms produced statewide Kcs 304 million of profit in 1980, they ended up with a loss of Kcs 55 million in 1981. Yet, the financing of expanded reproduction in the enterprise by the enterprise's own funds depends on the amount of profit.

Profitability expressed by the ratio of profit to the total costs which amounted on the average for state farms in the CSSR to 1.59 percent in 1980 turned into -0.28 percent loss in 1981.

The economic results of state farms are enhanced every year by grants and subsidies primarily from the state budget and state funds which supplement the overall financial resources designed for allocations to the enterprise funds and required levies. Nevertheless, the inadequate production of state farms' own resources in 1981--despite increased grants and subsidies to the economic result--resulted in smaller total resources. It was Kcs 54 smaller per ha of agricultural land than in 1980 (Table 4).

Table 4. Production and distribution of financial resources per hectare of agricultural land on state farms of the CSSR

Indicator	1980	1981	1981/1980 Index (percent)
Profit (loss -)	220	-41	X
Grants and subsidies to the economic result	645	861	133.5
Resources, total	906	852	94.0
Levies to the budgets of national committees and other budgets	200	183	91.5
Allocation to enterprise funds	728	812	103.8
Levies and allocations (including other use of economic result), total	1027	1043	101.6
Excess in distribution of economic result	121	191	157.9

The inadequate production of one's own resources also caused distributed shares to exceed economic results every year. In 1981--with reduced levies to the budgets of national committees and slightly increased allocations to the enterprise funds--the excessive distribution of economic results on state farms of the CSSR increased from Kcs 121 to Kcs 191 per hectare of agricultural land.

The excessive distribution of economic results requires additional funds for its financing.

More productive and effective utilization of all resources invested in production remains an urgent problem facing state farms. Particularly important in this respect will be the mobilization of internal reserves in those enterprises where there still persists an excessive differentiation in the results achieved by individual state farms even if they operate in approximately identical natural conditions.

10501
CSO: 2400/28

AUGUST 1982 ECONOMIC RESULTS SUMMARIZED

Prague HOSPODARSKE NOVINY in Czech 24 Sep 82 p 2

[Report by Dr Eng Vaclav Cap, CSc, Federal Office of Statistics: "August 1982"]

[Text] In view of the approaching end of the year, all production enterprises, plants and organizations in production and nonproduction sphere must make maximum effort to meet this year's targets. It is equally important to determine what progress the given organization made in the application of efficiency and quality of work and whether and how it created conditions for the successful development in the remaining years of the current 5-year plan. All the more urgent is the criterion of quality and conceptual work because an international comparison of the results uncompromisingly reflects the proportion between the production and use of the national income and cannot provide any excuses for the society as a whole. Conversely, it clearly reveals any mistake, shortcoming and unresolved problem.

Looking at economic development during the last 8 months from this standpoint, it is evident that the first positive steps toward greater efficiency were made, but that this is not enough in view of the total needs. A detailed analysis reveals that the contributions made to the society by certain enterprises, plants, work collective and individuals are frequently debased by careless work, irresponsibility and mismanagement of others.

When compared with the same month of last year, the August results appear to be favorable at the first glance. The industrial production volume increased 3.1 percent. During the first 8 months, the value of sales for exports to the socialist states increased 6.5 percent and to the nonsocialist countries 4.4 percent, while the shipments of machinery and equipment for capital investment projects increased 3.2 percent. On the other hand, the deliveries to domestic trade declined 1 percent. The volume of construction work decreased only 1.1 percent in August. This was due also to the fact that August this year had 1 working day more than August last year (the same is true of the January-August period). Average daily production in August declined 0.5 percent in industry and 5.6 percent in construction in comparison with August 1981.

Industrial enterprises as a whole fulfilled their production plans during the first 8 months of this year. It can be assumed (since production increased 0.9 percent in 8 months) that industry as a whole will meet the state plan targets this year. This favorable estimate, however, cannot lull us to complacency. In the first place, almost 75 percent of the total number of industrial enterprises failed to fulfill their production plans, and the sales by some sectors or of some products encountered difficulties on the more demanding foreign markets because progressivity in the technical parameters and economic effects was not attained. Industry must pay much more attention to supplying the domestic market with the required assortment and innovated products which would meet the population's demand.

Fuels and energy must be systematically conserved in all production sectors. This year's difficulties and nonfulfillment of plan in brown coal output (the shortfall during the first 8 months amounts to 1.6 percent of the plan target or approximately 0.96 million tons of brown coal) indicate that we cannot rely upon big reserves in winter and must therefore conserve coal and electricity even now. Other economic sectors must create optimum conditions for the fulfillment of the plan of coal output and overburden removal in brown coal mines.

The construction industry as a whole is energetically trying to gradually make up for the production loss during the first 6 months of this year. It must be stated, however, that while the enterprises of the CSR Ministry of Construction fulfilled two-thirds of the annual state plan, the situation in most enterprises in other sectors is not so favorable. The district construction enterprises continue to show the biggest deficit in the plan fulfillment. Construction workers are more successful in finishing apartments than last year. The economic plans were fulfilled and the construction enterprises completed 27,800 apartments, that is 20 percent more than during the first 8 months last year. Yet, even this significant improvement does not come close to the planned progress in apartment construction. The number of completed apartments represents only 40 percent of the annual plan.

In agriculture, favorable weather made it possible to finish grain crop harvesting with relatively small losses. Despite the increase in comparison with last year, however, the grain crop did not meet the plan target. For this reason, agricultural enterprises must pay increased attention to harvesting corn for grain and sillage, potatoes, sugar beet and other fall products in order to create necessary reserves of fodder for the winter period. It is the duty of management personnel in agricultural production plants even now to very carefully administer available fodder and to ensure nutrition for the planned herds of domestic animals by the most rational fodder consumption.

Transportation volume increased in August. Public transportation carried 3.9 percent more commodities than in August 1981. This increase was partly caused by the accumulation of extra supplies of ores. The amount of goods transported from the beginning of the year exceeded the plan target by 0.4 percent. Pressure on the automobile transportation of CSAD [Czechoslovak State Automobile Transportation] was more intensive than on railroad transportation.

The development of efficiency requires much more attention to its key factor, that is to the practical application of scientific and technological achievements. Despite some improvement, however, the introduction of new products of high technical-economic standard lags behind the needs of the economy. They accounted for only 11 percent of total commodity production during the first 6 months of this year.

State economic organizations have been meeting the plan targets for reduction of production costs. The total production costs (excluding the effect of foreign trade) per Kcs 100 of output amounted to Kcs 90.61 during the first 7 months and were Kcs 0.21 below the annual plan. Material costs, excluding depreciation allowances and services of an immaterial nature, accounted for 64.61 percent of the output and were Kcs 0.40 less than the annual plan. The lower dynamism of production this year makes it possible--and future development makes it imperative--to pay more attention to the qualitative aspects of production, the necessary restructuring and ensuring of bigger outputs with the given inputs.

In accordance with the plan, capital investment and deliveries excluding "Z" campaign and investments by the population decreased. According to the preliminary results, they amounted to Kcs 76 billion during the first 8 months of this year, which was 2.7 percent less than during the same period last year. The number of unfinished construction projects was reduced to 25,395 at the beginning of 1982. Nevertheless, the still considerable number of unfinished projects points to insufficient intensification.

In foreign trade with the socialist countries, there was a relatively rapid increase in exports with some slowdown in imports. During the first 8 months, exports were 11.6 percent and imports 10.3 percent more than during the same period last year. The big dynamism was also affected by the increases in export and import prices. In commodity exchange with the nonsocialist states, however, the required dynamism was not achieved. Exports were 0.6 percent higher and imports 15.6 percent lower during the January-August period than during the identical period last year. Despite some drop in export and import prices, foreign trade must cope with some direct and indirect discriminatory measures by some countries.

Personal earnings continued to grow and their increase to a considerable extent offset the effect of wholesale price increases at the end of January. During the first 8 months, they were 3.5 percent higher than during the same period last year. The growth rate of retail trade turnover in the main trade system at current prices again increased in August and amounted to 3.5 percent from the beginning of the year. The sales of food item increased more rapidly than those of industrial goods. Deposits in savings accourts increased, while money supply decreased in August. At the end of August, savings deposits amounted to Kcs 172.8 billion, which was Kcs 9.8 billion more than a year ago. Money supply was Kcs 48.1 billion, which was Kcs 3.1 billion more than a year ago.

Basic Indicators of National Economy's Development in August 1982 Increases Over Comparable 1981 Period (in percent)

	August	January-August	State Plan[1]
Deliveries of the Centrally Administered Industries for:			
--investments at wholesale prices	--	3.2	-15.0
--domestic market			
at wholesale prices	--	-1.0	- 0.9
at retail prices	--	-1.8	- 1.5
-export to socialist countries			
at wholesale prices	--	6.5	- 2.5
at FOB prices	--	9.7	3.6
--export to nonsocialist countries			
at wholesale prices	--	4.4	3.4
at FOB prices	--	-0.4	3.3
--other sales for industrial production and operations at wholesale prices	--	0.4	--
volume of industrial production	3.1	1.3	0.4
average number of employees	0.5	0.6	0.3
labor productivity based on industrial production	2.6	0.7	0.3
Construction			
construction work performed with internal labor resources	-1.1	-4.6	- 4.3
average number of employees	-2.0	-1.1	- 0.8
labor productivity based on construction work	0.9	-3.6	- 3.6
housing units delivered by contracting enterprises	7.8	21.2	11.1
Procurement of			
Slaughter animals (including poultry)	-6.9	-6.7	- 9.5
milk	-2.3	-2.1	0.2
eggs	6.0	-0.4	- 0.2
Retail turnover of the main trade systems	4.1	3.5	4.2[2]
Foreign Trade[3]			
export to socialist countries	8.4	11.6	4.8
export to nonsocialist countries	-3.4	0.6	6.1
import from socialist countries	-2.4	10.3	12.9
imports from nonsocialist countries	-1.4	-15.8	- 1.0
Personal Earnings[5]	3.5	3.5	4.0[4]
of which: income from wages[5]	1.9	2.2	3.1
Actual cash expenditures[5]	5.6	2.9	4.3[1]

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1. Increases compared to actual 1981 results.
2. All trade systems.
3. Data on actual results refer to actual transactions and the state plan (in contrast to overall actual results) does not include unplanned actions within the framework of cooperation, unplanned reexports trade, exchanges and conditional trade transactions, etc.
4. Including estimated interest on loans.
5. Data based on treasury plan of the SBCS (CS State Bank).

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REALIZATION OF ENERGY UTILIZATION PROGRAM DESCRIBED

Budapest PARTELET in Hungarian No 10, Oct 82 pp 15-20

/Article by Dr Laszlo Kapolyi, state secretary for the Ministry of Industry: "Implementation of the Energy Management Program"/

/Text/ A decade ago we assumed that oil prices would remain steady, based on the world economic situation at that time, or assumed that the oil prices advantageous to the Hungarian economy would remain steady over the long term. As a consequence of this, significant oil refining and transportation equipment were built, as well as equipment in the hydrocarbon fired power plants which require the consumption of large quantities of oil. Oil fired heat generating equipment has also spread significantly in agriculture, transportation, industry, at public facilities, and among the population. Electrical energy consumption also increased. However, it was soon found that the prognosis was wrong, and in early 1973 oil prices increased sharply. The first huge price increase was followed by a second one, and ever since then the price has been increasing practically continuously. As a result of this, the opportunity for favorable imports has thoroughly changed. The new situation and the high prices have caused purchasing difficulties on the one hand, and on the other hand they have also made it necessary to review and change the structure of our energy sources. And all this in an age when the national economy's energy consumption has increased every year--reaching an average rate of 5.3 percent per year.

Use of the Domestic Energy Sources

The Politburo passed a resolution in 1978 for developing an energy policy. At the same time measures were also taken to get the industrial enterprises and the agricultural operations to develop their material and energy management plans as part of the annual enterprise plans. The following year--in the second half of 1979--the efforts for more rational operations could already be felt, as well as the efforts to avoid waste, and the initial results of frugality were beginning to show. At the time this meant that increases of energy consumption were moderated. The consequent and significant decrease was a result of better management, as well as industrial production rate slowed more than had been planned.

In December 1980 the Council of Ministers approved the government's energy management program for the Sixth Five-Year Plan, and the action program to create the basis for implementing it. The essence of this is that the growth rate of energy consumption should continue to decrease, and to change the structure of energy consumption and energy sources. First of all, the goal is to increase the ratio of domestic energy sources from coal, natural gas, nuclear energy, and to decrease the amounts of imported petroleum products and coke. According to the plans during the time period of the Sixth Five-Year Plan we must achieve--in harmony with the economic policy--only one to one-and-a-half percent increase in energy consumption instead of the former three-and-a-half to four percent per year. The program has allocated an investment of 30 billion forints for the developments necessary to achieve this goal.

Further improvements in energy management should not be conceived as a separate program, since it is closely linked to the frugality and rationalization programs which encompass all branches of the economy.

Actually, the guidelines for energy management are that, at best, the prices and price ratios of fuels, particularly of the hydrocarbons to remain at the same level in the next decade, but presumably they will increase. Thus, fuel will remain expensive--whether derived from domestic production or from imports. In spite of all this, energy sources must be ensured for the requirements of social and economic growth. Consequently, we have a lasting interest in implementing the economic growth with decreasing energy costs. Moderating the energy costs per unit quantity of production or services and changing the fuel structure cannot be, however, the task of the energy management branch exlusively, but rather it is a joint task of industrial production, transportation, agriculture, the construction industry, communal services, and the population. That reality must also be kept in mind that changing the fuel structure is a longer process; expanding domestic energy sources requires time and money; replacement of the consumer's equipment is costly; and, what is even more, is that influencing and changing the habits of consumers is also not merely a question of days, either.

In the era of cheaper energy prices the share of hydrocarbons increased significantly--by 64 percent--in our economy, among the fuels consumed. Because of this, predictably it will prove reasonable for a long time to replace the energy consuming, converting, and transporting equipment. That is, compared to the expensive petroleum products it has become economical to use the cheaper domestic fuels--for example, coal, agricultural and forestry management waste and byproducts, and geothermal energy--for the purpose of generating heat.

It is obvious however that energy saving investments are not needed at any price, only that which economically and technologically rational. And this is valid only to the extent where an investment still generates greater energy savings than the energy source we would produce or buy from abroad. And the size of the reserves concealed in this area is illustrated well by the fact that with the proper rationalization the needs can be satisfied with half the cost, compared to imports or domestic energy production.

Measures to Accelerate Implementation

Last year the external conditions of energy supply deteriorated further and the planned oil and coke import possibilities also decreased. Therefore last October the Economic Commission decided to speed up the implementation of the government's energy management program. The measures are aimed primarily at two main areas, decreasing and replacing the use of energy sources, and expanding the production of domestic ones.

Replacement of imported coal, hydrocarbons, and coke with domestic coal is of prime importance. This year's national economic plan specifies the production of 26 million tons--including, an increase of lignite production. This can be ensured through further mechanization of the mines, and improvement of production capacity.

The population's demand for coal has increased slowly but steadily in recent years, and this trend is gaining further strength due to the various measures. However the mines have not been able to produce such amounts of good quality coal. Since coal supply to the power plants prevailed, the necessary care was not taken to enrich and improve coal, to produce briquettes. Thus the populations supply remains wanting. In the interest of implementing the solution as soon as possible, preparations have begun for the investments of the Nograd [megye] coal preparation works, the Borsod [megye] coal washing plant, the Oreszlany coal preparation and washing facility, the Mecsek waste coal user, and the Varpalota and Dorog briquette plants.

The waste discovery studies are an important part of preparing the energy rationalization activity. Undoubtedly, the research-development and the supervisory organs play a significant role in this, but even so there are also great opportunities in the initiatives of the work place collectives. For this very reason the competitive suggestions concerning decreasing the losses are enjoying out-of-turn priority within the acceleration program.

* It is well known that there are many opportunities for saving fuel in motor vehicles, both in the technological and the consumption areas. On the one hand, in order to identify these, increased supervision is necessary and on the other, the more general acceptance of performance controlling instruments and consumption decreasing methods must be encouraged. The economical operation of motor vehicles is aided by the automotive repair enterprises building a network of diagnostic and check-up stations, which is now under way. However, it is a fact that neither the public sector nor the private owners are taking sufficient advantage of the opportunities of instrumented tune-ups. The KPM [Ministry of Transportation and Postal Affairs] is an exception. Some 74 percent of its motor vehicles receive instrumented maintenance, and 98 percent have modern and systematic consumption control.

Saving fuel has again put the emphasis on the necessity to convert the gasoline-fueled trucks to a cheaper fuel. For example, the conversion of the high specific gas consumption ZIL trucks (43 liters per 100 kilometers) to diesel fuel is in progress. Technical and economic studies are in progress in the area of converting to diesel operation by intalling the German IFA engines, the British Perkins engines, or the Romanian DAC engines, and by the end of this year 1,000 ZIL trucks will have been converted.

* In the interest of saving heating oil we have begun to reconvert the coal furnaces converted earlier to burn hydrocarbons, back to using coal. Moderation of heating oil consumption in the households requires that the public sector gradually eliminate oil furnaces by 1985. According to polls done early this year, about 220,000 oil furnaces are operating in public buildings, consuming 150,000 tons of oil each year. According to the operating plan prepared by the councils, top level authorities and the ministries, this year we can expect the changeover of only about 60,000 furnaces. However, the goal of the acceleration resolution is 100,000. Thus, this can be accomplished by bringing the replacement of 40,000 furnaces forward to this year. Steps have been taken to help replace oil heaters with other methods of heating. Such is the increased production of coal fired heaters and ovens, and of small and medium-sized furnaces, the expansion of the gas pipeline system, and in justified cases the use of reservoir-equipped electric heaters.

* So far 17 heating facilities have been placed into operation to use agricultural and forestry byproducts; they were in part developed domestically, and in part obtained from import. The type for domestic production will be selected on the basis of the experience obtained from these.

This year we are planning three biogas plants, and in addition to this studies are in progress also for using biogas generated at the community waste dumps. Biogas utilization is successful and economical in Szombathely, therefore we are preparing to use it also in other cities of the country.

* Thermal insulation of buildings is an important area of energy rationalization. The Ministry of Construction Affairs has developed the technical specifications and the implementation guide for the retrofit thermal insulation of buildings. The modern thermal insulating materials--rock wool, expanded perlite, foamed cement, and insulating mortar--are available, with which the thermal insulation job can be done on old and new buildings. Increasing the production capacity of modern, thermally insulating seals for openings is also in progress.

* Among the domestic energy sources, natural gas also has a significant role in addition to coal. This year we must produce an additional 300 million cubic meters. Starting with the end of this year, the low heating value natural gas from the regions of Nagykoru, Kisujszallas, and Fegyvernek will be used in the Tisza II Power Plant.

Of course, the above-mentioned items do not include all the details of the acceleration resolution, but they do indicate what a complicated and multifaceted task is involved here. For this very reason the participation of all areas of the social and economic life is necessary in order for the intensive program to be implemented.

Opportunities for Saving Energy

Basically, last year's energy consumption developed favorably; energy consumption decreased by 0.7 percent, while the national economy's gross output increased by 2.3 percent. Energy consumption per unit of the national income decreased by 2.6 percent. The energy management program and the resolutions passed to accelerate its implementation play a significant role in this. However, the lower consumption was also assisted by the fact that the outside temperatures were higher than average during the heating period. It is important--and at the same time this is also an achievement--that the decrease in energy consumption was not accompanied by limiting the justified needs. We must appreciate the efforts made to overcome the difficulties.

This year has shown that electrical energy and natural gas consumption have increased: coal and briquette consumption have remained at last year's level; consumption of the costlier energy types which represent higher financial burdens--gasoline, diesel and heating oils, as well as coke—have decreased.

Improvement in the structure of energy sources is reflected by the fact that the ratio of petroleum and petroleum products decreased from 41 percent in 1978 to 35 percent last year. This is equivalent to a decrease of 2 million tons of oil. And, since the ratio of domestic production has increased--even if only slightly--, a trend of several years has been reversed.

The program's control and informational systems have been developed, as well as the method of providing incentives and rewards to persons cooperating in saving energy and in implementing the investments.

Of course, good intentions are not enough to save energy. Partly, because the facilities and equipment necessary for this is either more costly, or there might not even be enough of them in the stores; and partly, because in some cases the weight of the savings cannot even be sensed particularly. But the situation is different at the national economy's level. For example, if one million older type, so-called tube type TV sets which consumed 140-250 watts, were replaced by the more modern, 60-70 watt types, we could save at least 100 MW peak-time power plant capacity, of which the investment cost alone is 3 to 4 billion forints, not to mention the energy savings generated in the national economy as well as for the population. Another example: if all domestic consumers converted from the traditional incandescent lighting to lighting by straight and circular flourescent tubes, even at 60 percent conversion we could save a peak time capacity of 254 MW and 426 GWh per year; that is, 117,000 tons of oil.

There are many other kinds of opportunities, since the theoretical solutions are practically unlimited. But that certain "if" is there in all opportunities, which in most cases means time and money. For this very reason, sober decisions must be made in practice: in the given situation and under the given circumstances how well and to what extent can the opportunities offered by science and technology be used. It can also be seen from this, that credit will not solve our problems, but presumably it can contribute to, or provide incentives for the purchase and installation of new equipment. Therefore the OTP [National Savings Bank] provides commodity loans for the thermal insulation of dwellings and for the installation of coal-fired central heating systems. Part of all this is that through coordinated development it must be ensured that the equipment and appliances be available in the necessary quantities. Development of the industrial background must implement the technological improvements which will result in more energy-saving versions of the appliances we use today (household appliances with lower consumption, more favorable lighting appliances, refrigerators with better thermal insulation, etc.). The limiting and regulating elements, controlling appliances and measuring instruments needed to achieve better efficiencies must be available.

It must also be considered that the long recovery time of investments made to develop the industrial background, the savings will appear not at the manufacturer but at the user. We are now in the period of development, investment preparation, production preparation, or plant test runs. The extent of industrial background development is characterized by the fact that last year it amounted to 22 percent of the costs to be spent on contracted energy rationalization investments, and during the course of practical application its share in energy savings is 49 percent.

The national medium range research and development plan of energy management, which contains the tasks the energetics research projects must concentrate on with consideration to the long range concepts, was prepared in agreement with the Scientific Policy Commission. The research and development activity must lay down the foundations for a more rational and higher level energy management, the ability to adjust as quickly and flexibly as possible to the changes occurred in the world's economy, and for satisfying the energy needs of the national economy reliably, but with as little expense as possible.

We can acknowledge the goals of the program and the results of its implementation so far as signs of success, but we also have to see that in certain cases the efforts to affect savings, and the change-over from hydrocarbons to other energy sources does involve a decreased level of convenience. We must help all strata of the population understand this circumstance and the decrease in costs that will occur as one factor to offset this, to that the monetary financial expense or inconvenience would not hinder the achievement of multifaceted savings of energy.

The Budapest and megye party committees have established committees concerned with energy, as advisory organs, to promote implementation of the government's program; this indicates and helps the program becoming a cause for the whole society. The presidium of SZOT [National Council of Trade Unions] has several times discussed the situation of energy management, and has assigned tasks to the branch trade unions to help the labor competition and the brigade movement save energy. The Ministry of Industry and the National Development Bank [AFB] have entered into a cooperative contract with the KISZ [Hungarian Communist Youth League] Creative Youth Association and made financial means available to them to finance the solutions. The MTESZ [Federation of Technical and Scientific Associations] has announced, judged, and made awards for an energy saving competition held in several stages, and turned them [the entries] over to the appropriate organs for implementation. The Patriotic People's Front held informative lectures in several megyes, and mobilized its agents to help achieve the goals. The Central Popular Control Commission [KNEB] regularly supervises implementation of the energy management program.

The Ministry of Industry has set up organizations of the TEB [Regional Energy Industry Committees] in the megyes to help solve the complex probems of regional energy management. Their task is to at all times promote implementation of the energy policy's goals and to coordinate the desirable energy source replacements with high quality long-range planning for the area within the system. The TEB is also assigned to identify all new ideas and procedures suitable for implementation, and to make these available to energy management.

Experience gained so far proves that in order to solve the local problems it was necessary to set up an organization to handle regional planning and energy management, and to create an energy information system. Several coordination problems have been solved during the short time these committees have been in operation, which otherwise would have been handled only by means of coordination at higher levels.

Implementation of the energy management program is an organic part, and at the same time also a precondition for successfully carrying out the Sixth Five-Year Plan. It lays down the foundations for one of the fundamental economic policy goals of the plan, improving the equilibrium situation of the national economy.

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PLANNED DEVELOPMENT OF ENERGY RESOURCES EXAMINED

Discovery of Coal Deposits

Bucharest REVISTA ECONOMICA in Romanian No 38, 24 Sep 82 pp 3-4

[Article by Daniel Badoiu, deputy director of the Bucharest Enterprise for Geological and Geophysical Prospecting]

[Text] The world energy crisis has reconsidered the importance given to coal as an energy agent, given the fact that, as we know, known reserves are capable of satisfying man's needs for 150-200 years, while those of oil are barely able to do so for 25-28 years.

Recorded trends as well as Romania's reserves in this area have been taken into consideration in working out the lines of direction for our party and state energy policy. The party document entitled "The program directive for research and development in the energy area for the 1981-1990 period and main guidelines up to the year 2000" adopted at the 12th party congress, as well as the RCP CC March 1982 plenum decision contain important tasks in the area of providing the economy's needs with raw materials within which major responsibility belongs to geological research for developing the national energy potential.

Adequate Organization for Providing an Impetus for Prospecting

In the Ministry of Geology the prospecting phase is carried out by the Bucharest Enterprise for Geological and Geophysical Prospecting (IPGG), a unit created by merging two units for hydrocarbons and for solid mineral substances. The basic idea of this merger was to utilize human potential and technical supplies, particularly geophysical and data processing, rationally and completely in the prospecting and identification of new useful mineral substance deposits.

Increasing coal and bituminous shale production primarily requires the stimulating of prospecting projects in all regards. This means greater mobilization of forces, primiarly in order to:

1. Extend and diversify prospecting methods for coal and apply them under the specific conditions of the land. For this purpose one must bear in mind the increase in complexity of geological investigation by simultaneous use both of direct

observation as well as data offered by geophysical prospecting, with the latter finding a broad field of application in bringing out the structures of coal-bearing depth. In order to solve this problem the ministry provided for complete seismic equipment in the supply plan for 1983 and coming years. Using the enterprise with this kind of equipment--for which the unit has highly-qualified specialists who know how to handle the installations and give scientific interpretations of the results--will permit both shortening the research time as well as increasing degree of certainty regarding the development of coal accumulations.

2. Have parallel execution of certain mining and drilling projects for prospecting and exploration which are of special interest. Beginning in 1982 a section for mining and drilling projects was established in the enterprise; its purpose is precisely to verify geological conditions through the projects, to have deep penetration, offering the geologist the opportunity to have fast testing of all the elements of the quantity and quality of the useful mineral substance met, but particularly its position in space, the basic element for establishing the conditions for utilization.

Both for 1982 activity as well as for that in the coming period, concern has been emphasized with obtaining appropriate supply with installations and equipment, with providing qualified personnel (drillers, miners, shot-firers and so forth). At the same time, being kept in view is creation of appropriate working conditions and stability by providing one free hot meal per day for those working underground and campsites offering worker personnel the best rest conditions for enjoying their free time.

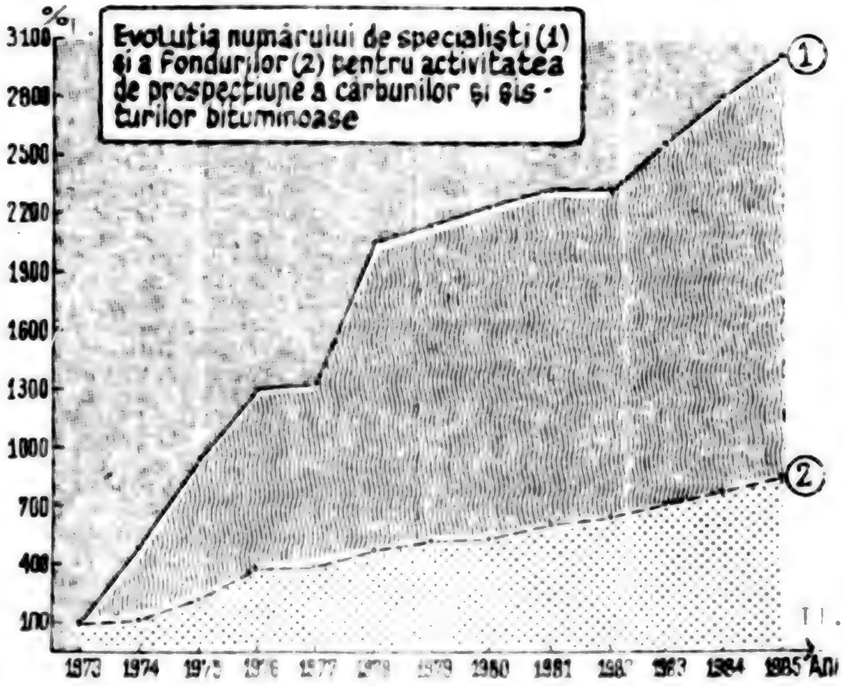
3. Using the specialized personnel's working time as well as the equipment and apparatuses supplied through better organization. As we see in the graph, in a relatively short period of time, but in conformity with the requirements of the national economy, there was a considerable increase in the enterprise in the number of specialists involved in activity of prospecting for coal and bituminous shale and those working in synthesis activities and in drawing up geological documents calculating the coal reserves,with their number being approximately 30 times greater than in 1973 by 1985. At the same time, the value of the financing capital allocated from the state budget and intended for coal and bituminous shale investigation rose nearly 7 times in this same period.

Under these conditions, even starting in 1974, geological prospecting activity for coal and bituminous shale has been concentrated in the mining perimeters which have not been investigated enough as well as new zones with prospects in accumulating workable coal layers in pits and underground. Actually it has been oriented toward all areas of the country with sedimentary formations which have conditions favorable to forming the carboniferous facies.

As a result of this activity a number of important geological results were obtained in the 1974-1980 period, ones which led to bring out new coal reserves, with some of them already entering or ready to enter exploitation. At the basis of discovery of a lignite deposit in Arcus-Valea Crisului in Covasna County, which total reserves valued at more than 50 million tons, for the most part workable in the pit, are the prospecting projects accompanied by investigation proposals with drilling by geologists of IPGG as well as for the sub-Carpathian region of Muntenia, where two areas have been formed with lignite layers of economic importance--one between Valea Rosie and Valea Rosca and the other in the Vulcana-Pandele area.

Intensification of geological investigations in the sub-Carpathian zone of Oltenia (the Getic Depression) has led to formation of lignite layers with opportunities for working in the pit in many areas (Berbesti, Valea Cernei, Valea Amaradiei-Valea Gilortului) through an effort at collaboration among the prospecting geologists and those in exploration activity. Also as a result of geological investigation, having at its basethe prospecting projects of great detail begun in 1979-1980 and the geological plans with drilling proposals, the Uricani-area-Buta Valley from the high reservoir of the western Jiu Valley has been brought out, an area where many areas have been separated with pit coal layers, partially workable in the pit.

Continuing, one should state that an unprecedented development of geological activity is forecast in this five-year plan--almost 1.6 times that of the 1976-1980 level. On this basis and as a result of other complex measures, coal production will record an increase of from 44 million tons in 1982 to 87 million in 1985.



Key:

I. Evolution of the number of specialists (1) and capital (2) for prospecting of coal and bituminous shale activity

I. Years

Promoting Modern and Efficient Methods of Investigation

The discovery of new reserves of coal in hidden structures requires broader utilization of methods of indirect geophysical investigation (seismic, gravimetric, radiometric) which, completed with the data resulting from photographic interpretation, geological prospecting and laboratory studies, should lead to superior results in the end. But, for this we need a more vital and more thorough collaboration both in the field and in the laboratory between specialists of various profiles as geologists, geophysicists, chemists and physicists. The product of this activity carried out until now is the large discoveries of superior coal in the Petrosani basin (Cimpul lui Neag, lignite in Oltenia (Berbesti, Panga, Valea Mare and Cerna-Copaceni), in Muntenia (Valea Sticlariei, Glodeni) and the Birsa Depression (Sf. Gheorghe-Arcus).

Broad-scale utilization of the well geophysical meters as well as radiometric prospecting in discovering layers of coal and bituminous shale is shaping up to be a basic concern of collectives of specialists. As a result of these actions which will have to be extended substantially by reinterpretation of the well logs, it has become possible to bring up in southern Muntenia layers of coal which also have come to the attention of the future work programs. Among other things they also provide for limiting the number of meters (of the volume of rock extracted) with continuous coring , a fact which will contribute to large savings of time and capital. Also, special attention in the future programs for working with the drilling of structures considered to be of interest for gas and oil is being given to geophysical and geological information which also means the presence of accumulations of coal because continuous coring is done in the intervals needed.

It should be mentioned that only through prospecting activity is it possible to discover new coal-bearing structures. In case the particular layers are at the surface or are shallow, even in the prospecting stage it is necessary to investigate them with light mining projects (ditches, shafts and so forth) and shallow drilling. This new orientation in prospecting methods increases its efficiency by shortening investigation time 20-2[illegible] percent, permitting both the evaluation of prognosis or category C_2 reserves (reserves estimated on the basis of surface geological observations) as well as increase in the degree of certainty needed to insure success in exploration activity.

Since until now the IPGG did not have available for the solids section the supply needed to do light mining projects and shallow drilling, the ministry moved to establish within it a drilling and mining section. In this section's production plan the activity for coal exceeded 60 percent of the total volume for 1982 and is estimated that it will increase to around 70 percent in 1983. As a result, this section's personnel without higher studies are included in qualification courses, for the most part on the job--the job sites for prospecting and exploration.

Within the broad framework of geological investigation activity for coals and bituminous shale, the enterprises maintain close relations of collaboration with the Institute for Geology and Geophysics (IGG), the Enterprise for Drilling and Special Geological Work (IFLGS), geological exploration and prospecting enterprises on the territory of the Ministry of Geology as well as other units of the Ministry of Mines. The results of the basic scientific activity carried out by the IGG, specifically in regional geological studies or prognoses and geological maps, are being taken and used in prospecting activity to clear up certain scientific-economic problems and in working out annual and long-range plans. Also a larger and larger number of prospecting geologists are participating directly in working out prognoses for coal and bituminous shale, together with specialists from the Institute for Geology and Geophysics.

Finalization of prospecting activity is thus carried out in geological investigation projects with mining and drilling projects in the zones of economic interest, worked out in collaboration with the IFLGS and units on the territory. The collaboration mentioned generally simultaneously takes place on the projects of priority interest, aiming at shortening the time for investigation and utilization of accumulations of coal and bituminous shale. In the stage of carrying out the exploration projects, the prospecting geophysicists and geologists must follow up on and guide all investigative activity in close collaboration with the specialists from exploration up to the move to working the deposits formed. Also, a portion of them have the task of providing the geological documents for the largest accumulations of coal in the working basins and, more recently, in providing technical assistance for working certain deposits (Lonea, Rovinari).

Priorities in Marking Out the New Reserves

Taking into account the growing requirements of the national economy and implications of the energy crisis worldwide, the March 1982 RCP CC Plenum felt that decisive measures continue to be needed to increase coal production. In order to fulfill this task, in mind are:

Intensification of work projects in some mining basins in Gorj, Vilcea, southern Munteria, Mehedinti and Transylvania as well as geological and technological investigation projects to bring up new reserves and their entrance in economic circulation, 13 new projects for pit coal and 22 projects for lignite and brown coal. The problem is of maximum importance, given the fact that the success of this action as well as of others will make a decisive contribution to providing for Romania's energy independence by the end of this decade.

The energy program established by the plenum at the same time aims at a more correct substantiation of Romania's energy policy, which proceeds from the need to ensure the continued increase and good management of energy resources. To carry out these tasks, geological prospecting for coal and bituminous shale must provide the following in the shortest possible time:

Priority orientation of prospecting toward those regions of Romania where the requirements for these sources are particularly stringent. In this regard, the prospecting for coal is to be intensified in the sub-Carpathian zone of Oltenia and Muntenia, on the Moesica and Moldavian platforms, southeastern Transylvania as well as in the Borod, Zarand and Mehadia basins. Forces for this must be concentrated on the projects of great interest with a view to the discovery and rapid utilization of new deposits. At the same time, activity of prospecting must be given an impetus, particularly in the areas of the coal-bearing basins which include new projects forecast to enter into operation;

Giving special attention to the zones for coal, with prospects, zones situated on the Moldavian platform (Neamt, Bacau and Botosani counties), in the eastern Carpathians (Harghita, Covasna and Bacau counties), in the southern Carpathians (Caras-Severin and Sibiu counties), in the sub-Carpathian zone (Vrancea, Bazau and Arges counties), in the Transylvania and Apuseni Mountain basin (Sibiu, Salaj and Cluj and Alba counties) and in the Panonic Depression (Arad, Salaj and Bihor counties);

Permanent concern with investigating the structures of interest for combustible shale in the oligocene formations of the eastern Carpathians and Banat, where broad exploration and work projects are taking place.

Power Production

Bucharest REVISTA ECONOMICA in Romanian No 38, 24 Sep 82 pp 18-19

[Article by Dr Alexandru Mihailescu]

[Text] Among the concerns of our party and state with multilateral development of the economy, providing the country's continually increasing energy needs has occupied and does occupy a leading place according to its importance in promoting socialist industrialization, in the development of all the economic branches and in raising the people's standard of civilization and culture. Even in 1945 at the national party conference the development of Romania's energy system and its electrification were considered tasks of maximum importance for providing the conditions needed for rapid progress in all sectors and areas of activity.

The party's clearsighted policy of development and efficient organization of the Romanian energy system predominantly was demonstrated in the years following the 9th party congress, even before the start of the world energy crisis, with measures and actions having been undertaken in Romania to save and have superior utilization of the energy potential and to have strict correlation of the rising national income with energy consumption. The correctness of the guidelines established by the 9th party congress have fully been confirmed by the realities of our social-economic life, while these guidelines were reasserted at the following congresses and national conferences. At the 12th party congress the series of measures for increasing electrical energy production and having efficient organization of it were included in a new strategy, whose goal is to obtain Romania's energy independence by the end of this decade, a task of vital importance for the further development of the Romanian economy. For this purpose the congress adopted very important documents, in the forefront being the "program-directive for research and development in the area of energy for the 1981-1990 period and the main guidelines up until the year 2000."

The special efforts made with a view to providing the national economy with higher quantities of electric energy have resulted in a rapid growth in the production of this important factor in progress and civilization (Table 1).

Table 1: Electric Energy Production

Production	1938	1950	1965	1980	1985
Total production (billions of kWh)	1.1	2.1	17.2	67.5	82.5
Per capita production (kWh)	72	130	905	3,040	around 3,500

According to per capita electric energy consumption, which is one of the important criteria characterizing the development level of a country, Romania has come very close to the economically developed countries, although just four decades ago in this regard it was among the European countries with an underdeveloped economy, which, however, should spur it on to an even more intense effort at saving energy. These results were obtained through a powerful mobilization of forces, through assiduous organizational work carried out by the party, through utilization of large material and financial resources. In 1980 the volume of investments obtained in the electric and thermal energy branch was more than triple that of 1965 and around 47 times greater than in 1950.

A very important point for the continued development of the Romanian energy system was the RCP CC Plenum's decision on 31 March 1982 of the decision on fulfilling the program for energy production in the 1981-1985 five-year plan and development of Romania's energy base until 1990. This document, worked out on the initiative and with the decisive contribution of the party's secretary general,Comrade Nicolae Ceausescu, develops on a higher level the provisions included in the program-directive mentioned as adopted by the 12th party congress. The important measures established at this time are being oriented toward extending and improving the national electric energy system, complete utilization of hydroelectric energy potential, use of nuclear energy and new resources of energy and reduction in the utilization of hydrocarbons for energy purposes. Measures also are to be adopted on the production and sensible utilization of hydrocarbons.

With a view to fulfilling these goals efforts are being intensified--efforts which Romania has been making for a long time--to make a thorough investigation of all zones of the country so that new energy resources are put into use while the production of the main energy indicators should record substantial increases (Table 2).

Table 2: Evolution of the Production of the Main Energy Carriers

Energy Carriers	unit	1950	1960	1970	1975	1980	1985
Coal (net)	millions-tons	3.2	6.8	20.5	27.1	35.2	85.6
Crude oil (extracted)	millions-tons	5.0	11.5	13.4	14.6	11.2	15.0
Methane gas extracted	billions m^3	2.1	6.7	20.0	27.0	28.2	26.3
Hydroelectric energy	billions kWh	.169	.397	2.773	12.637	8.711	17.5

In order for Romania's electric energy to increase to 74.1 billion kWh in 1982, to 82.5 billion in 1985 and 110 billion kWh in 1990, a new power of 7,920 MW is to be installed during this five-year plan, of which around 2,500 WMW are in the hydroelectric power centrals and 5,420 MW are in the thermoelectric power centrals which operate on coal, shale and reusable resources, while a power of 9,850 MW is to be installed in the 1986-1990 period. Giving the efficiency of the centrals which produce both electric and thermal energy, all the thermoelectric power centrals will be built as thermification centrals.

The structure by sources of production of electric energy is to see a considerable change (Table 3).

Table 3: Structure of Electric Energy Production in Romania by Sources (in %)

Sources	1965	1980	1985*	1990*
Total electric energy production, of which ____percent is in:	100	100	100	100
Hydroelectric power centrals	5.8	13.7	22.3	24.0
On coal	18.5	26.5	49.9	44.0
On hydrocarbons	75.0	52.3	25.5	4.6
In nuclear power plants	--	--	--	22.7
On other fuels and new and reusable resources	.7	2.5	2.3	4.7

* Production obtained in centrals of the Minister of Electric Power, which will supply 95.2 percent of the total electric energy production (ministry centrals + enterprises) in 1985 and 96.4 percent by 1990.

First, one must stress the considerable reduction in the contribution of hydrocarbons to obtaining electric energy, with their being intended to a greater extent for the chemical industry, where superior utilization of them can be provided. In exchange, one should note the particularly large contribution which is to be made by coal to the country's energy balance, whose production is forecast to rise from 44 million tons, which is the planned level of production for 1982, to more than 85 million tons in 1985. More than three-fourths of Romania's lignite production is to be provided by the Rovinari and Motru mining combines in the Gorj basin.

Bearing in mind that in the current decade there is a predominant search to increase energy production from classic resources, particularly coal, the application of extraction technologies is to be extended from faces supplied with mechanized support complexes and new technologies will be established, ones which are adequate for the various widths of coal layers. Also, efforts are to be concentrated on working out working technologies, including by underground gasification for the coal reserves located under difficult geological-mining conditions.

Hydroelectric energy resources are to represent a share of the increase in the structure of the energy balance. In 1980 around 30 percent of Romania's hydroelectric energy potential was utilized; in 1985 the degree of utilization will rise to 45 percent, in 1990 to 65 percent, that is, practically the entire arrangeable energy potential. Along with the building of big hydroelectric power centrals, we will seek to set up more than 1,500 microhydroelectric power centrals on the interior waters by the end of this decade. With regard to new and reusable enrgy resources, the emphasis is being placed on intensification of projects of scientific research and technological engineering to find the most efficient solutions for utilization of solar, geothermal and wind energy, biogas and the energy contained in industrial and household waste. The contribution of new energy sources to the energy balance will equal 5.5 million tons of conventional fuel by 1985 and 7-10 million by 1990.

The current and future five-year plans are the period in which implemention will begin of the program for development of nuclear energy in Romania. The power installed in the nuclear power centrals will be 4,500 MW by 1990 and 9,600 MW by 1995. The atomic energy centrals will be located in Dobrogea, Moldavia and Transylvania. The central in Dobrogea is being built in Cernavoda and will have five groups of 660 MW, the one in Moldavia will have available three groups of 1,000 MW each and the one in Transylvania will be a central similar to the one in Cernavoda. During Comrade Nicolae Ceausescu's recent visit to Constanta County, the opportunity was confirmed for building five nuclear units instead of just the four forecast initially for the central in Cernavoda, in accordance with the tasks established by the party and state leadership. The completely special proportions of this project are brought out by the fact that the water-pumping station needed for the central will provide double the flow of water per second compared with the Olt one. With a view to fulfilling the program to create and develop Romanian nuclear energy, special attention is being given to achieving the tasks included in the special programs for obtaining the nuclear materials needed, the nuclear fuels and the equipment necessary for the nuclear and the classic portions of the centrals which are to be built and these tasks are to fulfilled on schedule and at the appropriate level of quality.

building of the projects, along with immense material effort specific to the energy area, means a special concentration of forces at the organizational level, the application of those measures intended to insure that the desired result is obtained. These measures, along with providing the appropriate material base, aim at creating the conditions needed to attract and stabilize the labor force where there is a more powerful lack of it. Greater attention is being given to the operating level of the energy installations by supervision and qualified maintenance of them. At the same time, efforts are being made to provide for greater operating safety for the equipment of the energy groups of various powers.

Providing conditions for satisfying the energy needs of the national economy is not only the problem of workers in the energy sector but a problem of national interest which concerns each worker, each citizen. Not only in Romania, but throughout the world, it is felt today that saving and eliminating waste is the most advantageous source of energy. This truth should be better mastered by those economic units which are exceeding the consumption standards, where it is necessary to take decisive measures to modernize technologies and rationalize production flows, to increase the productivity of utilization of energy resources. At the same time more decisive action must be taken to replace the superior forms of energy with resources of inferior quality, which are more abundant in Romania.

The big reserves which exist in this area are illustrated in general by the fact that in Romania per capita energy consumption is at a level which corresponds to certain developed countries, but in which a per capita national income superior to that of Romania is achieved. Eliminating this quality gap means promoting a firm policy of rational management and reduction of material and energy consumption, of saving on fuels and energy strictly in all sectors of activity and improving the structure of industrial production. At the same time, continuing to keep the negative effects of the world energy crisis and the considerable rise in production and operating expenses of the fuels have required adoption of new measures intended to provide for the sensible management of energy resources and reduction of fuel consumption by increasing the output of their use, eliminating losses in transporting of energy, strict rationalization of fuel consumption and the consumption of electric and thermal energy.

On the other hand, the requirements for providing normal conditions for carrying out activity in all economic sectors have demanded adoption of measures which would insure profitability of production and use of various categories of fuels, which have brought an increase in production prices as well as the retail prices and tariffs on fuels, electric and thermal energy in conformity with the Decree on Establishing Measures for the Judicious Management and Reductionin Consumption of Electric Energy, Thermal Energy, Natural Gases and Other Fuels. Undoubtedly, through the united efforts of all workers, through application of the series of measures adopted by the party leadership to fulfill the national energy program, through steady, month-by-month and decade-by decade fulfillment of the production forecasts, judicious use and saving of energy will the conditions necessary be created to reach the strategic goal, lying in providing for Romania's energy independence under conditions of maintaining an emphatic vitality of the overall development of our national economy.

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ROMANIA

FACTORS TO BE CONSIDERED IN PROPER PRICE FORMULATION

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/Article by Dr C. Tudoran: "Prices--an Important Factor for Consolidating the Enterprise's Self-Administration"; passages enclosed in slantlines printed in boldface/

/Text/ The consistent application of the new economic and financial mechanism and, in particular, of self-administration, which constitutes one of its basic principles, is conditioned to a considerable extent by the quality of the price system. Based on the socially necessary labor expenditures for producing the goods and brought systematically into agreement with the more significant changes that occur on the domestic and international markets, the prices must provide for the recovery of the costs and the obtaining of an optimum profit by all enterprises that perform their activity under normal conditions of technical and economic organization of production.

Through the price-improvement measures applied in recent years, including those at the start of the current half-year, a more sensible correlation, on economic criteria, of all categories of prices has been achieved: the lagging of the prices in relation to the real social expenditures for production and circulation in some subbranches and groups of products has been eliminated and a more sensible distribution of the net income between the branches and sectors of the national economy and the more suitable reflection of the use value of the products in the prices have been provided. An economically more substantiated relationship and a closer connection between domestic prices and international prices have also been achieved. Due to these measures, the prices now provide the necessary premises for the enterprises in all branches of the national economy to organize their activity on the principle of self-administration, as the new economic and financial mechanism requires. Under the conditions of the prices in force, the achievement of a profitable activity by all enterprises and their possibility of forming their funds provided for development and material encouragement depend exclusively on good management of the material, human and financial resources, on complete fulfillment of the targets stipulated in the state plan. /The keeping within the planned level of costs by each enterprise and central is decisive in this regard/. At the same time, it is also necessary to achieve additional cost reduction, in order to offset part of the price increase for raw materials, fuel and energy and of the funds allocated for increasing the monetary incomes of the population.

In the present material, we raise for discussion some aspects concerning improvement in the methodology of the formation of prices, in order to intensify their role as a factor for consolidating the self-administration of the enterprises, for stimulating the concern for cost reduction and for growth in economic efficiency.

Periodically Revised Standardized Costs

Bearing in mind that the keeping within the level of the costs taken into calculation in price setting, by all enterprises, in essential for achieving self-administration in practice, we will tackle first a few aspects regarding cost setting and planning.

The analysis of the price proposals prepared by enterprises and of the way in which the planned level of costs taken as a basis in price setting is achieved reveals, in many cases, the existence of "reserves" resulting from overestimation of some cost elements. In order to prevent such situations, which can lead to unjustified growth in prices and to easy fulfillment of the cost-reduction targets, a sounder substantiation of each product's costs is necessary. In this regard, we consider it right to turn to setting the different elements of the costs, to /establishing standardized costs/, at least for the most important products, on the basis of the standards for the consumption of supplies and labor and the targets for economization of supplies and growth in labor productivity. Depending on the importance of the products, the standardized costs could be set by the State Planning Committee, together with the State Committee for Prices, or by the producing enterprises, centrals and ministries. These standardized costs at the branch level would have to be revised periodically, depending on the rate of technical progress and the evolution of the prices of some elements of expenses. Considering that under the current conditions the redesigning of products constitutes the main way to reduce production costs, especially those referring to raw materials, supplies and energy, it seems necessary that along with the task of redesigning and modernizing the products /minimum targets for reducing the consumption of supplies and energy per unit of useful effect/ also be set. In the GDR, for example, the minimum target for reducing the material and energy consumptions in the redesigning of products is 10 percent.

The more intense mobilization of the efforts of the enterprises to further reduce costs requires improvement in the planning of the production expenses according to enterprises, centrals and ministries. The "expenses per 1,000 lei of commodity output" indicator, used at present, reflects both the results obtained in cost reduction in relation to the preceding period and the influence of the change in the structure of the products, that is, the prices of new products and assortments, which, for the most part, do not depend directly on the activity of the enterprises and, in some branches, such as, for example, machine building and light industry, can have a significant percentage. /The calculation of this separate indicator, both for the comparable commodity output and for the uncomparable commodity output/, or the supplementation of the present overall indicator with /a cost-reduction target for the comparable commodity output/, would orient the enterprises in the taking of efficient steps to really reduce production costs. At the same time, the substantiation of the "expenses per 1,000 lei of commodity output" indicator and of the cost-reduction target for the comparable output could be improved considerably by /calculating them analytically/ for each product and later combining them according to enterprises, centrals and ministries, through automatic-data-processing procedures. To this end, a data-processing application, whose programs and instructions for the computer can be put at the disposal of any enterprise, industrial central or ministry, has been devised and tested with good results within the State Committee for Prices.

The enterprises' possibility of forming their funds for development and material encouragement is also conditioned by the matter of setting as sensibly as possible and completely achieving the profit included in the production price of each product.

Under the conditions of the current economic and financial mechanism, the enterprises are even more "sensitive" to the size of the profit that they can achieve for each product. Consequently, in order to interest the enterprises in making all assortments of products and services wanted on the market, it is necessary for their prices to provide relatively close profitabilities. The existence of very low profitabilities for some products in relation to others on the same unit's production list does not stimulate their manufacture in the needed quantities, generates preferences for the more "advantageous" products, especially when it is a question of assortments not listed in the plan of the units. Similarly, the existence of excessive profitabilities causes the respective products to be preferred for overfulfilling the plan and, in general, does not stimulate the utilization of new reserves for cost reduction.

Except for some objective variations in the profitability taken into calculation in price setting, the way in which the price-setting methodology is applied in practice constitutes, in our opinion, a source of unjustified variation in it. It is known that in setting the prices of new products the volume of profit taken into calculation is determined on the basis of the profitability "taken" from the similar reference product, called a standard product. Despite some quite analytic criteria for selecting the standard product, due to the high degree of diversification of the [illegible] selecting the standard for correlating the prices it is not [illegible], there being the possibility of adopting standards with higher or lower profitabilities, depending on the judgment or interests of the one who prepares the price proposal. The methodology also provides for the "updating" of the price calculation for the standard product under the conditions for manufacturing the new product, in order to prevent the "taking" of obsolete profitabilities, not corresponding to the current production conditions. In practice, this operation, which is laborious and has a large amount of subjectivity, is not done most of the time. As a result of this situation, significant variations in profitability, unjustified economically and capable of having negative repercussions on the interest of the manufacture by enterprises of all products and assortments needed on the market, appear between the different assortments of the same product and between the products within a certain group.

[illegible] Standards and Standardized Quotas of Profit

The avoidance of unjustified variation in the profitability included in the prices of new products and the simplification of the whole operation of selecting the standard [illegible] by adopting a system of fixed standards, that is, by establishing a list of representative products for all groups of products in one branch or subbranch of the processing industry. Clearly, such a list of reference products would have to be revised periodically, depending on the changes occurring in the assortment structure of the respective groups. In fact, this method has been applied with good results in the furniture industry, so that its adoption would not pose special problems. An even simpler solution for achieving greater closeness in the rates of profit included in the prices of products within the same group or subbranch, especially under the current conditions of changing the prices at shorter intervals, would be the adoption of standardized quotas of profit, varying according to branches and subbranches, like those utilized in resetting the prices.

In connection with the basis for calculating the profit included in the prices of products, it should be pointed out that in a number of European socialist countries, such as the People's Republic of Bulgaria, the Czechoslovak Socialist Republic, the

In the USSR, on the occasion of the last resetting of production prices, in the branches of the processing industry characterized by a high percentage of material expenditures, the profit was set in accordance with the "processing expenses," that is, by excluding from the total costs the raw materials, supplies, energy, fuel and semiproducts bought outside the unit. The intensification of the role of prices in stimulating the economization of supplies, fuel and energy was sought through this measure. The setting of the profit in accordance with the total production costs makes the bulk of the profit depend on the volume of the costs, and in the cases when raw materials and "collaboration" have the decisive percentage within them, there can appear on the part of enterprises the tendency to take into calculation and, respectively, to use collaboration not right for the national economy or more costly supplies, in order to achieve a high volume of profits.

Under the current conditions in our country, when the basic indicator for judging the activity of the enterprises is net output, which does not include the material elements of the costs, tendencies like those above are avoided to a considerable extent. Clearly, the adoption of such a basis for setting the profit does not exclude the necessity of also calculating it in accordance with the total costs, in order to determine the economic unit's profitability. In any case, the generalization of such a method would require some experimentation in advance. The setting of the net income in proportion to the value added in each stage of production would be important on a wider plane, since it would eliminate the process of successive stratification of net income as a result of the passage of a product through many processing stages, thus facilitating the determination of the real contribution of the branches to the creation of national income and especially the wide-scale use of mathematical methods in modeling the economy's general proportions and, respectively, in establishing more substantiated price relationships between branches, subbranches and product groups.

Prices on the Basis of Average Costs

The rigorous application of the principle of self-administration in all enterprises also poses some new problems with regard to substantiating the level of the prices. In the party and state documents it is pointed out as clearly as can be that the enterprises must achieve as high efficiency as possible for all products or activities. Consequently, under the current conditions, unprofitable or losing products or services can exist only as temporary exceptions, in the period for attaining the projected parameters at new production capacities. On the other hand, the determination of the prices on the basis of the average costs in the whole branch constitutes a basic principle in price formation, also legislated in the Law on the Price and Rate System. In the situation when a certain product is made by several units, as is the case of the mass products in ferrous metallurgy, light industry or the food industry, it is natural for them to attain individual costs different from the average level taken into calculation in determining the prices, depending on the concrete production conditions. It is essential for the difference between the highest individual costs and the average level of the costs in the whole branch to not be greater than the volume of the profit taken into calculation for determining the prices, in order to also permit the units with poorer results to achieve some profit.

In view of this situation, it is possible to speak of the existence of a certain contradiction between the requirement of profitably achieving the products in all units within the branch and the principle of forming the prices on the basis of the average costs. The resolution of this contradiction cannot be done by setting the prices on the basis of the highest costs in the branch or by varying them according to the individual costs of the producing units. Such an extreme variation in production prices, equivalent to setting them on the basis of the individual costs, was proposed relatively recently in our economic literature. Both solutions are unacceptable, as their application would mean abandonment of the role of a stimulant in cost reduction that only prices set on the basis of the average costs can fulfill. The only truly efficient method of resolving the above-mentioned contradiction consists of reducing the costs in the enterprises with poorer results, at least to the level of the average costs. Of course, in the case when the costs are significantly different in a unit as a result of objective factors, such as, for example, in the extractive industry, the current methodology permits the setting of production prices varying according to units, under the conditions of a single delivery price. This method is limited only to certain groups of products, bearing in mind the above-mentioned considerations and the processes of financial redistribution that it involves.

Far from being a drawback, some variation within rational limits in the individual costs and profitabilities, respectively, constitutes a stimulus for growth in the efficiency of production, for cost reduction, one generated by the action of the law of value through economically substantiated prices. Only by being set on the basis of the average costs can the prices act as guidelines in the expenditure of social labor and bring out the cases of irrational management of resources or the existence of technologies out of date in relation to the average production conditions.

/The expansion of the parametric methods of price formation/ constitutes a factor of a nature to avoid to a considerable extent errors and subjectivity in determining the prices, one that would also help to achieve greater effectiveness in price setting. This presupposes that for each homogeneous group of products there be established the main technical and economic parameters of the products and the proper methods of quantifying them, which would permit the matter of varying according to assortment and prototype dimensions and quality classes the prices set for the basic (representative) products. It would be necessary to include the respective parameters in the internal norms and standards for the products, with them having to be revised in accordance with the changes occurring in the manufacturing technology and in the use of the products. The grouping of the products into parametric series and the determination of the dependencies between costs (prices) and the technical and economic parameters of the products would make it possible to do on the computer all the operations connected with determining the level and correlations of the prices. The generalization of these efficient metnods and techniques of price calculation will become possible in the future through the achievement of the data-processing system for prices, now in a stage of design and partial implementation.

Some possible solutions for further improving the work in the price-setting field, oriented in the direction of expanding the role of prices in consolidating the economic self-administration of the enterprises, were outlined in the above. There is no doubt that the discovery of other possibilities, too, in this field, but especially their verification and implementation, require close collaboration between the specialists in the price bodies with the staffs of economists and technicians in enterprises, centrals and ministries, as well as in the specialized scientific research.

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ROMANIA

DEVELOPMENT PROGRAM PLANNED FOR SERICULTURE

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[Article by Gh. Fratila, Ov. Grasu and T. Titea: "Sericulture--Reserves That Must Be Utilized Better"; passages enclosed in slantlines printed in boldface]

[Text] The fulfillment of the vast program for harmonious economic development of the country provided in the Directives of the 12th Congress of the Romanian Communist Party necessitates the further achievement of high rates of economic development in all branches of the national economy, through maximally efficient utilization of all the resources that we possess, materialized in the reduction of the consumptions per unit of product, in general, and of those of supplies and energy, in particular. In this context, the recent Decree on the Establishment of Measures for the Sensible Management and the Further Reduction of the Consumption of Electric Power, Thermal Power, Natural Gas and Other Fuels fits into the complex of steps taken on the initiative and under the leadership of Comrade Nicolae Ceausescu to reduce the negative effects of the energy and raw-materials crisis manifested on a world level. Against the background of these actions with a general character, it is necessary to further find new methods and means of reducing the consumption of supplies and energy, among them there also going the concern for /revitalizing traditional pursuits/, in accordance with the current requirements, as is /sericulture/ too. Although it will not be able to replace the industrial production of silk, the raising of the production of natural silk will nevertheless help to achieve important savings of energy and scarce raw materials, there also being added to these aspects the fact that due to the matchless physical properties the price of silk on the world market is getting higher and higher.

The raising of silkworms, a pursuit with old traditions on Romanian territory, has had periods of advance and of decline over the years. Thus, even in a relatively short period of time--the postwar period--this phenomenon can be evidenced by the fact that after a record output of 1,300 tons of silk cocoons was obtained in 1963, the output fell by a factor of about 3 in only 10 years, later registering a slight rise again. Although a broad program for development of sericulture in the 1974-1993 period was drawn up in 1973, the implementation of it has been done more steadily only in recent years.

The special program for development of sericulture stipulates that nearly 15,000 tons of silk cocoons are to be produced in our country in 1985 and 36,000-37,000 tons are to be achieved by 1993.

In order to attain these objectives, a number of steps that involved the qualitative development of the activity in sericulture and the rapid growth of production have been taken. Thus, due to the economic advantages, the breeds producing yellow silk cocoons have been replaced with those producing white cocoons. In addition, the 18 ecological zones with a sericultural tradition have been consolidated and put under the administration of 22 /sericultural complexes. Sericultural farms, with intensive mulberry plantations/ on big areas and sericultural halls for breeding silkworms, have been created within these complexes.

Along with the raising of silkworms in /the traditional system/ (schools, the population's farms and so on), breeding farms of an industrial type, with specialized personnel and a suitable material base, have been developed at a rapid rate in recent years, with the entire production and research activity in this field being coordinated by the Central Production and Research Station for Sericulture [SCPCS]. At present, the raising of silkworms is done in special units of the SCPCS, in CAP's [agricultural production cooperatives], on the population's personal farms, in schools and so on. Despite the success achieved along the line of the organization and technical equipping of sericulture, it must be pointed out that the results obtained do not come up to the level of the targets set and the material base created. On the population's farms and even in the CAP's, the production of silk cocoons has registered a slight decline in recent years. This points up the fact that /sericulture has not yet become again an activity with a well-defined place within the economy of agricultural production/, that the many advantages that the individual producers, the agricultural units and the whole economy can obtain by practicing and developing this noble and old pursuit are not yet known in depth.

The Better Utilization of Vegetable Resources

One of the advantages that recommended sericulture as an activity with a wide following within the rural population was, above all, the fact that /vegetable resources which were not part of the fodder needed for the animals/ on the traditional farm and which were practically available to everyone were used to feed the silkworms.

The mulberry, a tree with a high resistance to diseases and pests, was used and extended, at least in the earlier period, around the peasant farm, since it had a complex function. From it, planted usually in the direction of the prevailing wind in order to protect the farm, both the leaves and the fruit, mulberries, were used to feed animals or to make alcoholic beverages. Even under the current conditions, when the mulberry is grown on intensive plantations just for the leaves, it has the advantage that it does not require special care.

The introduction of new species of silkworms into production has made it possible to utilize the fodder base, with resources that are found in abundance being used as food. Thus, the castor-oil-plant species uses food that can be provided from the big areas cultivated with the castor-oil plant in the southern part of the country. In addition, other species feed on oak leaves, willow leaves and so on, which, as a rule, do not have any use and are found in sufficiently big quantities. From the above, it follows that sericulture can be developed in practically all counties of the country and that the fodder base does not constitute a restrictive factor in this action.

The Reduction of the Consumption of Energy

Even if this aspect is not grasped directly by the sericulturists, at the level of the national economy the natural production of silk fibers constitutes one of the factors that help to reduce the general consumption of energy. Thus, in contrast to the artificial production of silk fibers, sericulture provides /a high degree of energy conversion/, with the natural processes making the energy consumption almost insignificant. The general trend of growth in the price of natural silk and the success achieved by researchers in the creation of new, high-yield breeds and hybrids make topical again this noble pursuit, which was very lightly dismissed. Moreover, the maintenance and development of the folk art of sewing on raw silk--which also uses only human energy--in such demand on the foreign and domestic markets, can be done only under the conditions of obtaining a greater and greater quantity of silk cocoons.

To all these things must also be added the fact that the leaves used as litter, together with the fodder scraps, and the byproducts obtained after processing the silk cocoons, through suitable treatment, can be used as natural fertilizer on the mulberry plantations and for other crops.

Substantial Advantages for the Individual Producers

The expansion of the traditional raising of silkworms and the return of the individual producers to the forefront can be done only under the conditions of a general action for popularizing the technique of sericultural production and the economic advantages that those who practice this pursuit can obtain. Thus, Decree No 1939/1977 and Decree No 356/1981 provide the legal framework in which the material and monetary advantages of the producers are defined. For each kilogram of raw cocoons turned over to the state supply, the producer receives 100 lei (the average price being 97.50 lei). To this is also added the fact that technical assistance and the supplies needed--eggs and silkworms, litter and thinning paper for silkworms, chemical and medicinal substances and so on--are given free of charge to him. In addition, for each kilogram of cocoons, he receives 250 grams of peasant cotton yarn.

In order to help the producers and reduce the time needed by the producers to raise silkworms, the specialized state units put at their disposal, free of charge, 12-day larvae (which have gone through stages I-III), with them being raised in production for only about 15 days (stages IV and V). The relatively low labor consumption and the simplicity of the operations needed make possible the participation of all family members, from children to old people, in this pursuit. In addition, the raising of silkworms provides for /the rational use of space available/ on the farm (stables, shelters and so on) in the summertime. When necessary, the specialized units provide to the breeders shelters that can be easily transported and assembled.

In a sericultural season (60 days), about 3.5 kg of silk cocoons can be obtained on 1 square meter of prepared area. If we estimate a prepared area of at least 5 square meters on a farm, the breeder can obtain a total output of 17.5 kg of silk cocoons, for which he receives 1,750 lei, which we must feel, for the effort put forth, means an undeniable benefit. In some situations, these benefits can be even bigger, since the sericultural season can be extended by combining the species from four to six series. In addition, through the use of sericultural tents, depending on the fodder base possible to provide, the prepared area can reach 300 square meters or more.

Prospects of Development

The fulfillment of the ambitious program for development of sericultural production, which stipulates that the production of silk cocoons is to be nearly 15 times higher in 1985 than in 1982, presupposes the initiation of combined actions that include all aspects of sericultural production: organization, the providing of the fodder base, the improvement of the biological material and the breeding technology and so on. First, it is necessary to take steps that would provide for the development of sericultural production in all counties of the country. Thus, bearing in mind the plan for 1982, Dolj County must produce nearly 140 times more than Suceava County. At present, over 85 percent of the sericultural production is concentrated in only 17 counties, most of them in the southern part of the country. /Many counties (Braila, Iasi and so on), once with extensive traditions in the raising of silkworms and having favorable natural conditions, now produce almost insignificant quantities of silk cocoons/. Bearing in mind the variety of the fodder base, we feel that all counties have conditions for the development of sericulture, and just by raising the production to the level of the top counties (over 100 tons) it is possible to fulfill the desire of truly revitalizing this noble pursuit.

Another direction in which action must be taken is the providing of an optimum relationship between the production achieved in the industrial system and the traditional system. Of course, the industrial system provides a certain likelihood of achieving the production, but it has the disadvantage that the fodder base can be provided only by removing from the agricultural circuit new areas of land for the mulberry plantations. We believe that the reconsideration of the role of the mulberry along the straight stretches of country roads and highways, the planting of it on land unfit for agriculture, in schoolyards and so on, and the initiation of measures for popularizing the raising of silkworms within the population and in schools will help to increase the contribution of the population's farms and the schools to sericultural production. At present, their contribution to obtaining the production is (by design) only 25 percent, with it reaching 41 percent in 1985. The initiative taken in Buzau County, of setting up in schools small mulberry stands of 500-1,000 square meters, which will total about 3 hectares, in the 1982-1985 period, is significant in this regard.

The hastening of the action of creating the organizational and technical conditions for /the raising of silkworms on the castor-oil plant, the oak and other species/ that provide an abundant, reliable and cheap fodder base is also extremely important for the development of sericulture. In the 1982 plan, only 10 percent and 2 percent of the production of cocoons are expected to be obtained from the castor-oil plant and the oak, respectively, with these percentages rising to 30 percent and 13 percent, respectively, in 1985. Moreover, crops of castor-oil plants with mixed functions can be achieved on the areas of land devoted to breeding farms, with significant savings also being obtained in this way.

In order to encourage the development of sericulture in the rural area, we consider it necessary to /achieve an integrated system of production and processing of natural silk/. For example, within a combined agroindustrial council, part or all of the production of silk cocoons obtained on the population's farms, in schools and so on goes through all the stages within specially setup shops--from the raw cocoons to the finished product: cloth, garments and so on. The degree of stabilization and utilization of the rural work force and the attainment of other objectives with an economic and social character required by the implementation of the new agrarian revolution are thereby increased.

It is also necessary to continue the research work for /the creation of new breeds and hybrids of silkworms/ that would utilize the fodder resources, resistant to diseases and pests, that are found in abundance in nature (not only shoots but also mature leaves) and which provides high efficiency in the transformation of the raw cocoons into dry cocoons. Among the achievements in this field, we can point to the decision made in Buzau County that 500-700 kg of silkworm eggs from the Alb de Cislau breed, a breed of high biological potential, adapted to the natural conditions in the county, are to be produced during the 1982-1985 period.

Not least of all--as was also pointed out at the Expanded Plenum of the RCP Central Committee on 1-2 June 1982--it is necessary to provide for /the raising of the level of vocational training of the personnel who work in sericulture/, especially as the majority of the workers do not have specialized training through school. In this framework, special attention will be devoted to training the sericultural agents, who, in our opinion, should be paid according to /the overall contract system/ and only during the sericultural campaign. Another condition for increasing the efficiency in sericulture is the reduction of the degree of seasonality of sericultural production and the raising of the degree of use of the fixed assets and the work force. In this regard, it is also necessary to expand the experience of some agricultural units that practice /the system of mixed utilization/ of production spaces. For example, the Robesti CAP in Buzau County raises poultry (chicks) in winter and silkworms in summer in specially setup constructions. In this system, the agricultural units obtain additional income, the period for recovering the investments made is shortened and, at the same time, the degree of utilization of the work force and the personal incomes increase. Similarly, some tunnel-type sericultural constructions, covered with plastic, can be used in winter as propagating hotbeds with a minimum of effort. All these measures must be supported further through /actions for popularizing the achievements/ in this field of activity, the recommendations and advice of the specialists, and the new methods of breeding and of growth in production and, respectively, through direct help given to the producers.

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